Edwin Liang says:

\*Good morning everyone

\*We shall be talking about the article entitled Embryonic stem cell research and its associated ethical problems

\*Let's all give our input on the arguments put forth by the writer

John Yong says:

\*Okay I shall start.

\*The writer states that science does not “promise” miracle cures based on scanty evidence. I agree on this point because each scientific discovery requires a very long developmental cycle before it can have any practical uses. For example, when a new medicine is developed, it has to undergo much testing before it is declared safe for human consumption. Similarly, embryonic stem cell research is still a relatively new research and has not yet undergone much testing. Its potential and safety is still uncertain. Therefore, the senator should not look upon science as a guarantee to miracle cures. Hence, I agree with the writer.

Edwin Liang says:

\*I agree with John. However, i feel that instead of completely stopping all stem cell research, it would be beneficial to probe more into this topic and explore more potential discoveries this embryonic research has for mankind. Nevertheless safety should always take utmost priority in such scientific research and study.

Ming Xuan says:

\*Technically, i agree with the writer because the senator kerry is an "outsider" to science, for he is merely a politician. based on provenance, I am already inclined towards the writer because of his scientific background. furthermore, although by pumping in money into a particular industry, it will attract scientist to that particular area of research, and then hopefully, with all this dedication

\*find a better use for stem cell research. this i have to agree. but based on what the senator said, "producing miracle cures", i do not think his ideology is correct

\*as with politicians, they use every single mean to ensure their victory over their opponent, thus making them this planet's most untrustworthy people.

\*furthermore, science is the pursuit of knowledge and it not to be abused in such a way specifically to find miracle cures.

\*what would happen if really, miracle cures were to be derived from all this stem cell research? would it lead to humans being totally irresponsible regarding their own health care, since there's always a safety net in the end?

Mark [4ś209] says:

**\*I disagree with the writer's point. The writer assumes that Mr Kerry is making such promises. Without the statements that the writer is questioning, we cannot be sure that Mr Kerry did make such promises. He might have been citing various hypotheses by scientists in the field. He could have simply misinterpreted the speech given.**

Edwin Liang says:

\*i think mingxuan is right as the writer has taken advantage of his professional authority as a scientist himself to argue, making good use of ethos. however arent u making assumptions that all politicians are bad?

Mark [4ś209] says:

**\*You cannot assume that all politicians will make use of statements for their gain.**

Ming Xuan says:

\*ok, it's sort of personal bias to say that all politicians are bad, but that's besides the point

Edwin Liang says:

\*okay, let us move on to the next argument

\*the writer also argues that stem cell research involves the killing of human lives, as he considers 1-week-old blastocysts (human embryos) to be human beings as well

Ming Xuan says:

\*this is indeed a controversial point.

Edwin Liang says:

\*i personally think that a cluster of cells in this embryonic stage cannot be considered as a human being, and shldnt be accorded the same rights

John Yong says:

\*Yes. Most scientists argue that an embryo is not a person until it is at least two weeks old, when it develops a so-called primitive streak, the first evidence of a nervous system.

Mark [4ś209] says:

**\*I feel that a cluster of cells cannot be considered a human being. Firstly, while it is still dividing, neural pathways and nerve endings have yet to develop. Hence, the cluster of cells is not concious and will not feel any pain should anything be done to it.**

Keith Yaow says:

**\*I agree with John that an embryo should not be considered a person until he gains some sort of consciousness.**

Edwin Liang says:

\*But having said that, how do we distinguish between what is a human being and what is not?

Keith Yaow says:

**\*However, this is an entirely subjective matter. Some people believe that embryos may not be considered as human at all.**

Ming Xuan says:

\*Well having seen everyone agree, i shall add some fun by agreeing that blastocyst are to be considered humans!

Keith Yaow says:

**\*In response to Edwin, I believe that being sentient is the greatest representation of an entity being a human.**

Mark [4ś209] says:

**\*Blastocysts cannot be considered as human beings because they do not have a nervous system.**

**\*Also, I disagree with Keith on the point of sentience.**

Ming Xuan says:

\*So you consider a human being to be one with a nervous system?

Keith Yaow says:

**\*Yes.**

Mark [4ś209] says:

**\*If you feel that sentience represents a human being. What about those who are brain dead?**

Keith Yaow says:

**\*I'm interested to hear your views, Mark!**

Ming Xuan says:

\*well dogs cats etc, have a nervous system, so by your definition they are human beings?

Keith Yaow says:

**\*I was refering to WHEN a human should be considered human.**

Mark [4ś209] says:

**\*clearly, from our various viewpoints, there is much gray area on this subject.**

Ming Xuan says:

\*A human is human no matter what stage he is in.

\*unless he's dead, then it's called a corpse.

Keith Yaow says:

**\*How do you define it then?**

**\*From the moment the sperm reaches the egg?**

Edwin Liang says:

\*he is still a human, a dead one.

Ming Xuan says:

\*@edwin: you can put it that way too

Chin Ying says:

\*however such lifeforms will potentially become human beings

Ming Xuan says:

\*what i mean is that, from the very moment the sperm fuses with the egg, a human is on its way!

Edwin Liang says:

\*we are now talking about in vitro, and not in a womb

\*as t his links back to the notion of stem cell research

Ming Xuan says:

\*do you not call a human that's on his/her way to our wonderful world a human?

Keith Yaow says:

**\*Ok, then how about sperms? Are they considered human since all of them may possibly become humans?**

**\*And eggs too?**

Ming Xuan says:

\*nope, a sperm or an egg does not have the potential to become a human

\*it's their combined efforts that gives them the potential.

Mark [4ś209] says:

**\*actually, from a scientific point of view, neither a sperm nor egg can become a human. each contains a haploid amount of chromosomes, insufficient to form a human being.**

Edwin Liang says:

\*let us link back to the discussion

Keith Yaow says:

**\*Then what is a human made from?**

**\*Enlighten me please.**

Edwin Liang says:

\*in essence, it is difficult to distinguish between what is human and what is not

\*hence a large grey area exists, especially in the field of human rights laws

Ming Xuan says:

\*i have to agree with edwin on the definiton of humans.

\*such complex creatures too complex to define.

Edwin Liang says:

\*yes, especially when humans are so vastly different.

Keith Yaow says:

**\*I would like to pose a question.**

**\*The scientists in this article oppose to Kerry's full-fledged support of stem cell research, but do you guys think that stem cell research should be pursued to a lesser extent?**

Mark [4ś209] says:

**\*I agree**

**\*Stem cell research is actually split into two areas**

**\*The area in contention here is embroynic stem cell research, which is seen by some as unethical as it involves the destruction of human embryos.**

Ming Xuan says:

\*actually the writer agrees to stem cell research regarding the use of adult stem cells

Mark [4ś209] says:

**\*Furthermore, critics of embryonic stem cell research argue that the results are so far unproven.**

**\*The another area, as aforementioned by ming xuan, is adult stem cell research.**

Edwin Liang says:

\*i think we should focus not only on past research but on the potential this field of study has

Mark [4ś209] says:

**\*The results so far are promising, and the stem cells can be taken from the patient.**

Chin Ying says:

\*stem cell research should be aimed at reaping benefits such as gaining cures but should not transgress ethical issues

Edwin Liang says:

\*the problem is how we limit that

John Yong says:

\*I agree with Chin Ying. Senator Kerry said was that science must be freed from “ideology” to produce miracle cures for numerous diseases, and the writer disagreed with him. I also disagree, because if scientific research is allowed to go unchecked without any regard whatsoever for human morals and ethical issues, disastrous consequences would be a result. Science and technology should only be used to the benefit of the human race, and any harm to it must be avoided. Therefore, I what the writer has said is very valid.

Edwin Liang says:

\*therefore the line to be drawn between what we can do and what we shouldnt is very unclear

Keith Yaow says:

**\*I think clear debates and discussions need to be held in order to decide what research can be done and what cannot.**

Edwin Liang says:

\*i feel that stem cell research still has alot of promise as it provides an alternative to other more primitive methods of scientific research such as animal testing

Ming Xuan says:

\*but debates and discussions could only do so much, we need a higher authority to actually impose something

Keith Yaow says:

**\*In these situations, not only scientists should be considered. The general public, governments, and perhaps other groups should also be considered.**

Ming Xuan says:

\*why should general public be considered, when scientists are the real professionals here? would not their views ruin everything?

Edwin Liang says:

\*however there can be a negative side to this. ghoulish predictions put forth by Aldous Huxley's Brave New World and Orwell's 1984 suggest that in the future, embryos would become commodities to be chosen like items on a supermarket shelf. how far are we willing to go for stem cell research? should we stop it altogether to sidestep all these ethical conundrums?

Ming Xuan says:

\*the layman has been noted for ignorance, no?

Mark [4ś209] says:

**\*what defines scientific ethnics**

**\*is very difficult to determine.**

Keith Yaow says:

**\*Yes, but still, their views need to be considered.**

**\*Society is defined by the general public.**

**\*Without the laymen, ethics will not exist.**

Chin Ying says:

\*but laymen would not care much about ethics

Keith Yaow says:

**\*Why wouldn't they?**

Ming Xuan says:

\*actually i think it's the other way round

\*laymen care a lot about ethics so to speak, because that's their only tool of reasoning?

Mark [4ś209] says:

**\*actually, ethics is simply a convention**

Edwin Liang says:

\*i think we have to come up with solid guidelines to what scientific ethics should entail

Mark [4ś209] says:

**\*as everyone adopts a certain set of ethics**

Chin Ying says:

\*the parameters as to what is ethical and what is not is unclear to to most people

Edwin Liang says:

\*everyone are entitled to their own views, but common views on ethics must be set in place

John Yong says:

\*However these common views constantly evolve.

Edwin Liang says:

\*actually

Keith Yaow says:

**\*It really depends on what a particular society wants. Achieving a common ethical standard for the entire human race would be nearly impossible. Stem cell research, being a controversial issue, surely has supporters on both sides of the coin.**

Edwin Liang says:

\*i feel that there should always be people questioning other people's ethics. that ensures that people actually think about what is ethical and what is not. so i think keith is right in that laymen also should play a part in ethics, if not this so called 'ethics' would merely be determined by a select group of professionals that may not always be right

\*a common consensus is virtually impossible but continually working towards an ethical society is what matters most

Ming Xuan says:

\*i am inclined to believe that a set of ethics can never exist, because circumstances dictate ethics, and circumstances change.

Edwin Liang says:

\*differing views would always be present regarding the issue of stem cell research. perhaps a better approach to this issue would be to neutrally weigh the pros and cons of this issue, instead of one party always attacking the other

John Yong says:

\*For religious people circumstances do not dictate ethics; their religious beliefs do. Hence I agree that there will always be both proposition and opposition.

Mark [4ś209] says:

**\*it is very difficult to define. as someone who doesn't have any severe health problems, you might agree that embryonic stem cell research is unethical. however, if you afflicted with a life threatening disease and you hear that such research might be the key to saving your life, your viewpoint might change. remember that all humans have this basic instinct to survive, and therefore most would work to ensure their own self preservation.**

Edwin Liang says:

\*Stem cell research undoubtedly has a very large potential to be the key to developing a cure for such patients' diseases. However, what seems to be the only obstacle for further funding into this area of research is the ethics part of this. what do u think is more important in this case?

Mark [4ś209] says:

**\*whilst we advance in term of science and technology, we must not forget our ethics.**

John Yong says:

\*Ethics should always define our actions. Therefore I think ethics is more important.

Edwin Liang says:

\*if not the world will run loose right

Ming Xuan says:

\*because i feel that ethics change over time, it will always depend on what is the mainstream's attitude towards stem cell research.

Chin Ying says:

\*i feel that despite the potential that research should hold, we should bear in mind the implications that we may bring about, as we are not guaranteed success in developing cures or improvements

Edwin Liang says:

\*ok i agree.

\*let us now conclude our discussion today

\*we have talked about how it may not be fair to consider a cluster of cells to be a human being that should be given equal rights as you and me. in addition we talked about the controversial topic on ethics and how this never ending debate is so interesting

\*finally i think everyone agrees that ethics, no matter if they cannot be agreed upon, should still exist as we explore the frontiers of science

\*To end off, let me ask one final question.

If given the option to give your say, would you be FOR or AGAINST stem cell research?

Ming Xuan says:

\*definitely FOR.

Edwin Liang says:

\*i would say FOR.

Ming Xuan says:

\*those that do not require killings of embryos of course.

Mark [4ś209] says:

**\*for stem cell research, its usefulness in medical science will bring much benefit to the human race :)**

Chin Ying says:

\*for

John Yong says:

\*FOR

Keith Yaow says:

**\*how to say**

**\*I have rather mixed views, but I'm leaning towards the for side**

Edwin Liang says:

\*okay then, seems that all of us are interested to see what stem cell research has in store for us

\*the discussion has been rather fruitful today, thanks for everyone's participation!

Keith Yaow says:

**\*:D**

The group feels that this is an effective method for discussion. It is possible to easily refer to the points made by others.